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EXAMINER	
MEINECKE DIAZ, SUSANNA M	
ART UNIT	**PAPER NUMBER**
3694	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/070,358	KAWAHARA ET AL.	
	Examiner	Art Unit	
	Susanna M. Diaz	3694	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 May 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This non-final Office action is responsive to Applicant's response filed May 21, 2007.

Claim 1 has been amended.

Claims 23-27 were added in the preliminary amendment filed March 5, 2002.

Claims 1-27 are presented for examination.

Response to Arguments

2. Applicant's arguments filed January 11, 2007 and May 21, 2007 have been fully considered but they are not persuasive.

Applicant argues that the claim amendments have overcome the rejections under 35 U.S.C. § 112, 2nd paragraph. The Examiner has revised the § 112, 2nd paragraph rejection sections to address the claims, as currently amended.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1 and 4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the

invention. Claims 1 and 4 are deemed to be single means claims. Although claims 1 and 4 do not expressly utilize means-plus-function language, in *Fiers v. Revel,* (CAFC) 25 USPQ2d 1601, 1606 (1/19/1993), the CAFC affirmed a rejection under 35 USC 112 of a claim reciting a single element that did not literally use "means-plus-function" language. This parallels the fact situation in *Fiers* wherein "a DNA" and a result was recited. The CAFC stated in *Fiers* at 1606 "Claiming all DNA's that achieve a result without defining what means will do so is not in compliance with the description requirement; it is an attempt to preempt the future before it has arrived". See also *Ex parte Maizel,* (BdPatApp&Int) 27 USPQ2d 1662, 1665 and *Ex parte Kung,* (BdPatApp&Int) 17 USPQ2d 1545, 1547 (1/30/1989) where the claims at issue were rejected for being analogous to single *means* claims even though "means" was not literally used. Claims 1 and 4 recite the single element of a transportation adjusting portion. Under 35 U.S.C. 112, 6th paragraph, the use of means-plus-function language (or its equivalent, as recited in claims 1 and 4) requires that the specification provide enablement for all of the possible means that can be utilized to accomplish the recited functionality. The specification of the instant application does not provide sufficient disclosure to enable one to make and use all of the possible means that can be utilized to accomplish the recited functionality; therefore, claims 1 and 4 are rejected as a single means claims. It is respectfully suggested that claims 1 and 4 be rewritten to recite that the apparatus comprises <u>various</u> structural elements.

Appropriate correction is required.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-6 recites various elements as "portions" *per se*. It is not clear what the metes and bounds of a portion are. Is a portion merely software or is it a structural element, such as a device? Apparatus claims are defined by their structural elements and corresponding functionality. In an apparatus claim, functionality that is not directly tied to a structural element of the apparatus is outside of the scope of the apparatus claim and, therefore, will not distinguish the claimed invention over the prior art.

Claim 4 recites that "said transportation adjusting portion arranges an insertion of cargo transportation of said spot transaction without changing said transportation schedule" (lines 2-4), yet subsequently recites that "said transportation adjusting portion arranges an insertion of cargo transportation of said spot transaction by changing said transportation schedule in the event that the adjustment is impossible, said transportation adjusting portion arranges an insertion of cargo transportation of said spot transaction by changing another transportation schedule within a certain range in the event that the adjustment is impossible." If the transportation schedule is unchanged (as per lines 2-4), how can the cargo transportation be added to the schedule? Also, if the adjustment of a schedule is "impossible," how can a cargo transportation be inserted into the schedule? By adding a new cargo transportation to a

schedule, doesn't this refer to a change in the schedule as a whole? Additionally, what is meant by it being "impossible" to adjust a schedule? Who or what prevents the schedule from being adjusted and how is this accomplished? Claim 4 expressly recites that four different scenarios are performed. The first scenario adjusts cargo transportations in a first transportation schedule without changing said first transportation schedule. The second scenario changes the first transportation schedule if the cargo transportation adjustment is impossible. How can both scenarios be carried out together? It should be noted that the claim expressly requires that all scenarios be executed and not just the scenario for which the respective conditions are met. Similar problems arise with the third and fourth recited scenarios. Claims 10, 15, and 20 recite a similar set of limitations; therefore, the same § 112, 2nd paragraph rejections apply. For examination purposes, each limitation will be interpreted as one of four optional conditions. Only those conditions met by the prior art need to be explicitly addressed by the prior art.

Claim 5 is directed toward a device (i.e., an apparatus). Apparatus claims are defined by the recited structure and corresponding functionality. The scope of the structural elements of a commodity and containers, especially in terms of forming parts of a device *per se*, is vague and indefinite. The commodity and containers are not physically connected to the delivery scheduling system; therefore, the commodity and containers would not form part of the "transaction coordinating device" of claim 5. Furthermore, the type of commodity and containers involved in the claimed invention does not alter the recited structure or manipulatively affect any recited functionality;

therefore, the particular type of commodity and containers transported will not patentably distinguish the claimed invention over the prior art, thereby rendering the details of the claim superfluous to the invention. Claims 11, 16, and 21 recite a similar set of limitations; therefore, the same § 112, 2nd paragraph rejections apply (especially regarding the discussion of structure and manipulative functionality of the invention).

Claim 6 recites that the transaction coordinating device is "for coordinating an insertion of a cargo transportation of said spot transaction based on at least a predetermined number of days of operation and an actually required minimum number of days of operation of said cases." The scope of this claim is confusing. What do the "days of operation" refer to (i.e., operation of what)? Also, there is no antecedent basis for "said cases" and it is unclear what the cases are meant to refer to in the claim. Similarly, what is meant by "an actually required minimum number of days of operation of said cases." The Examiner makes her best interpretation of the claim in the art rejection below. Claims 12, 17, and 22 recite a similar set of limitations; therefore, the same § 112, 2nd paragraph rejections apply. It should be noted that claims 12, 17, and 22 recite "an actually required minimum number of days of operation of said *containers*" (instead of "said cases"). Does this mean that a determination of the expected shelf life of the liquefied natural gas containers is used to schedule delivery of the containers? Please clarify. For examination purposes, "said cases" in claim 6 will be interpreted as "said containers."

It is not clear if claims 7 and 22-27 are meant to be independent or dependent claims. They each refer to another respective claim of a distinct preamble. For

example, claim 7 is directed toward a system, but it appears to attempt to incorporate by reference the details of the transaction coordinating device from claim 1. It is not clear if all details are meant to be read in or just some. Claim 7 should either be clearly written as a dependent claim (making reference in the preamble to being directed toward a device as recited in claim 1) or it should be written out as an independent claim (expressly reciting all desired limitations of the transaction coordinating device). Similar issues arise with claims 22-27.

Claims 13 and 15-17 are directed toward a computer program product. While the program of instructions is expressly stored in an information recording medium and the program is executed, it is not expressly recited that the executable program instructs a computer, processor, or machine to perform the recited steps. Therefore, the article of manufacture format of these claims is improper.

Claim 14 is directed toward a computer program product. While the program of instructions is expressly stored in an information recording medium and the program is executable on a digital device, it is not expressly recited that the executable program instructs the digital device itself to perform the recited steps. Therefore, the article of manufacture format of this claim is improper.

In claims 18 and 20-22 (which are directed toward a computer program product), while the program product containing a computer program is assumed to be a computer readable medium, it is not expressly recited that the computer program is computer-, machine-, or processor-executable. Therefore, the article of manufacture format of these claims is improper.

Claim 19 recites a program product; however, there are no computer-, machine-, or processor-executable instructions expressly stored on a computer readable medium; therefore, the article of manufacture format of this claim is improper.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1-6 and 13-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-6 and 13-22 are written in an improper computer program product (i.e., article of manufacture) claim format, as discussed in the § 112, 2nd paragraph rejection section above. Consequently, these claims are interpreted as computer programs *per se*, which are non-statutory under § 101.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borders et al. (US 2001/0047285).

Borders discloses a transaction coordinating device for coordinating an insertion of a spot transaction based on a temporary contract being made without respect to a fixed transaction based on a contract of predetermined term (It should be noted that the contractual terms surrounding a spot transaction are outside of the scope of the claimed invention since the details of creating a temporary contract are not positively recited. Additionally, the fact that the spot transaction is based on a temporary contract does not affect any recited structure nor any manipulative steps of the claimed invention; therefore, the limitation "based on a temporary contract being made without respect to a fixed transaction based on a contract of predetermined term" will not distinguish the claimed invention over the prior art. Similarly, it should be noted that the contractual terms surrounding a fixed transaction are outside of the scope of the claimed invention since the details of actively setting the transaction as a fixed transaction for a predetermined term are not positively recited. This feature of the invention does not affect any recited structure nor any manipulative steps of the claimed invention; therefore, the fact that the transaction is fixed and based on a contract of predetermined term will not distinguish the claimed invention over the prior art. Consequently, for purposes of examination, a "spot transaction" will be interpreted as a transaction that is in the process of being scheduled while a "fixed transaction" will be interpreted as a transaction that has already been scheduled), said transaction coordinating device comprising:

[Claim 1] wherein a transportation adjusting portion for arranging an insertion of a cargo transportation relating to said spot transaction into a predetermined schedule of a cargo transportation relating to said fixed transaction of predetermined term, said insertion being arranged by adjusting the predetermined schedule of said cargo transportation relating to said fixed transaction of predetermined term (¶¶ 57-58 – A new schedule request is attempted to be inserted into an existing delivery route);

[Claim 2] a transportation data storing portion for storing data associated with said transportation (Figs. 1, 3; ¶¶ 45-47), wherein

said transportation adjusting portion arranges an insertion of said cargo transportation of said spot transaction based on data associated with said transportation transmitted from said transportation data storing portion (Figs. 1, 3; ¶¶ 45-47, 57-64);

[Claim 3] a transportation data storing portion for storing data associating with said transportation (Figs. 1, 3; ¶¶ 45-47); and

a conditions-of-transaction delivering portion for delivering conditions relating to said spot transaction from a party on one side of said spot transaction with respect to a party on the other side of said spot transaction (¶¶ 56-63), wherein

said transportation adjusting portion arranges an insertion of a cargo transportation of said spot transaction based on data associated with conditions of said spot transaction transmitted from said conditions-of-transaction delivering portion and said transportation transmitted from said transportation data storing portion (¶¶ 56-63);

[Claim 4] said transportation adjusting portion arranges an adjustment of cargo transportations in a first transportation schedule by an insertion of a cargo transportation of said spot transaction without changing said first transportation schedule (¶¶ 56-64);

said transportation adjusting portion arranges an insertion of a cargo transportation of said spot transaction by changing said first transportation schedule in an event that the cargo transportation adjustment is impossible (¶¶ 56-64);

said transportation adjusting portion arranges an insertion of cargo transportation of said spot transaction by changing a second transportation schedule within a certain range in an event that the first transportation schedule changing is impossible (¶¶ 56-64), and

said transportation adjusting portion arranges an insertion of cargo transportation of said spot transaction by changing another transportation schedule within a range to which said certain range is expanded in an event that the second transportation schedule changing is impossible (¶¶ 56-64);

[Claim 23] a terminal of a participant of said spot transaction connected to said transaction coordinating device via a communications circuit, wherein said spot transaction is conducted between said terminal operated by a participant of said spot transaction and said transaction coordinating device (Fig. 1; ¶ 57);

[Claim 24] a terminal of a participant of said spot transaction connected to said transaction coordinating device via a communications circuit, wherein said spot transaction is conducted between said terminal operated by the participant of said spot transaction and said transaction coordinating device (Fig. 1; ¶ 57);

[Claim 25] a terminal of a participant of said spot transaction connected to said transaction coordinating device via a communications circuit, wherein said spot transaction is conducted between said terminal operated by the participant of said spot transaction and said transaction coordinating device (Fig. 1; ¶ 57);

[Claim 26] a terminal of a participant of said spot transaction connected to said transaction coordinating device via a communications circuit, wherein said spot transaction is conducted between said terminal operated by the participant of said spot transaction and said transaction coordinating device (Fig. 1; ¶ 57);

[Claim 27] a terminal of a participant of said spot transaction connected to said transaction coordinating device via a communications circuit, wherein said spot transaction is conducted between said terminal operated by the participant of said spot transaction and said transaction coordinating device (Fig. 1; ¶ 57).

Regarding claim 1, even if the fact that a spot transaction is based on a temporary contract being made without respect to a fixed transaction and the fixed transaction is based on a contract of predetermined term were granted patentable weight (beyond representing a transaction currently being scheduled versus already scheduled transactions), such details would be obvious in light of the prior art teachings. While Borders does not expressly disclose the contractual details behind a spot versus a fixed transaction, Official Notice is taken that it was old and well-known in the art of shipping at the time of Applicant's invention to define shipment contracts that are more temporary and ones that are more long-term (i.e., fixed for a predetermined term). As

explained above, the contractual details behind the spot and fixed transactions do not affect the claimed structural elements nor do they affect the manipulative steps of the claimed invention. Regardless of the contractual details behind the transactions, as claimed, the recited structure and functionality would remain the same; therefore, the application of the claimed scheduling method, system, and computer program product to any type of transaction would yield predictable results. For example, the claims merely schedule one transaction. There are no iterations to schedule recurring deliveries versus only one single delivery; therefore, a contract that might require repeat deliveries is treated no differently that a contract for a single delivery. Consequently, one of ordinary skill in the art at the time of Applicant's invention would have recognized that the application of Borders' shipment scheduling invention to various existing types of shipment contracts would have yielded predictable results because the operation of Borders' scheduling as well as the operation of establishing contractual terms are not altered by a combination of the two.

Regarding claim 5, Borders does not expressly disclose that a commodity involved in said transaction comprises liquefied natural gas and containers containing said liquefied natural gas transported on a sea or on a road are used in said transportation; however, claim 5 is directed toward a device (i.e., an apparatus). Apparatus claims are defined by the recited structure and corresponding functionality. The type of commodity and containers involved in the claimed invention does not alter the recited structure or manipulatively affect any recited functionality; therefore, the particular type of commodity and containers transported will not patentably distinguish

the claimed invention over the prior art. Nevertheless, Official Notice is taken that it was old and well-known in the art at the time of Applicant's invention to transport liquefied natural gas in containers via a sea or on road. Therefore, it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to adapt Borders to transport a commodity comprising liquefied natural gas in containers via a sea or on road in order to make Borders more adaptable to serving a wider range of shipping clientele, thereby improving its chances for profit. Furthermore, since the operation of the claimed invention as well as Borders' disclosed invention are not unexpectedly altered based on the particular type of commodity and containers transported and all results from the modified version of Borders would have been predictable by those of ordinary skill in the art at the time of Applicant's invention, the Examiner submits that the claimed invention is obvious in light of the cited prior art.

As per claim 6, Borders does not expressly perform the step of coordinating an insertion of a cargo transportation of said spot transaction based on at least a predetermined number of days of operation and an actually required minimum number of days of operation of said cases (e.g., containers); however, Official Notice is taken that it was old and well-known in the art of shipping at the time of Applicant's invention to deliver a product sufficiently prior to when the product is expected to expired. Therefore, it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Borders to perform the step of coordinating an insertion of a cargo transportation of said spot transaction based on at least a predetermined number of days of operation and an actually required minimum number of days of

operation of said cases (e.g., containers) in order to provide better customer service. Clients will have no use for expired products and, therefore, will be more likely to be satisfied if their requested shipments arrive while the shipped products are still viable for use.

[Claims 7-22] Claims 7-22 recite limitations already addressed by the rejection of claims 1-6 and 23-27 above; therefore, the same rejection applies.

Furthermore, as per claim 19, Borders discloses that the spot transaction is scheduled with respect to a schedule of one or more of single and plural cargo transportations (¶¶ 56-64).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

McColl et al. ("A Good Company Never Blames its APS Tools") – Discusses the scheduling of critical, last-minute deliveries.

Monk et al. ("The Customer-Driven Development of Human Factors Design Guidelines") – Discusses dynamic delivery scheduling.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susanna M. Diaz whose telephone number is (571) 272-6733. The examiner can normally be reached on Monday-Friday, 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on (571) 272-6712. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Susanna Diaz

Susanna M. Diaz
Primary Examiner
Art Unit 3694

August 4, 2007